ABSTRACT

An improved method for providing parallel apply in asynchronous data replication in a database system is disclosed. The improved method and system provides a high speed parallel apply of transactional changes to a target node such that the parallel nature of the application of changes does not compromise the integrity of the data. The method and system detects, tracks, and handles dependencies between transaction messages to be applied to the target node. If a transaction message has a dependency on one or more preceding transaction messages whose applications have not yet completed, that transaction message is held until the application completes. In addition, the method and system requires significantly less overhead than conventional approaches.